

Wellesley High School Facilities Advisory Committee

Final Report of Committee Recommendations

Submitted to the Wellesley School Committee on January 20, 2006

Final Report of Committee Recommendations

Background.....	1
Summary of SMMA Report.....	3
High School Project Options	3
Option 1	3
Option 2	3
Option 3	3
Option 4 New	3
Option 4A.....	4
SMMA Analysis	4
Committee Discussion	7
Initial Position of the Committee.....	7
Views and Issues Raised by Committee Members	7
Competing Needs Within the Town	8
Comprehensive Maintenance Plan.....	8
Comprehensive School Building Master Plan	8
Opportunities for Additional Creativity.....	8
Process for Bringing a Project Forward.....	9
Articulating Educational Needs	9
Comparison of Options	10
Recommendations.....	12
Recommendation for High School Building Project	12
Additional Considerations	13
Comprehensive Maintenance Plan for Schools	13
Master Plan for School Buildings	13
Process for Bringing a Project Forward.....	13
Conclusion	14

Background

In January, 2005, the Wellesley High School Facilities Advisory Committee (hereafter referred to as the “Committee”) was convened to evaluate building needs at Wellesley High School. This group was appointed by the Wellesley School Committee at the request of Town Meeting. Appendix A provides a listing of Committee members.

The School Committee’s charge to the Committee was to:

- review the facility needs of the high school, based on the current education program;
- review the feasibility of a new high school facility including land availability, estimated cost, and time line;
- review the feasibility of an addition to and renovation of the existing facility, including cost and time line; and
- present findings to the School Committee prior to the 2005 Annual Town Meeting.

From January through March, 2005, the Committee met with members of the School Committee, School Administration, Permanent Building Committee (PBC), and with architects to better understand the conditions and constraints at the High School. Key documents were reviewed including Feasibility Study conducted by Design Partnership of Cambridge, dated May 2003 and Wellesley High School Schematic Design Submission by project architects Symmes Maini & McKee Associates dated January 17, 2005. Members also toured high schools that had recently completed major projects: Lincoln-Sudbury (new construction), Lexington (renovation), and Darien, Connecticut (new construction adjacent to existing high school).

In April of 2005, the Committee released an interim report on the progress for evaluating and addressing the needs at Wellesley High School¹. The report detailed the Committee’s concerns about conditions within the High School and the level of on-going investment into the building. Recommendations for priority repairs were included in the report.

In addition to recommended repairs, the Committee observed that any major building project would likely fall in one of four scenarios.

1. **Limited Renovation and Classroom Addition.** This corresponds to the project that the School Committee presented to the 2004 Annual Town Meeting. Approximately \$650,000 in design funds were requested by the School Committee and appropriated to the PBC to proceed with schematic design.
2. **Full Gut Rehab of High School with Classroom Addition.** This corresponds to the modified project scope that the School Committee presented to the December, 2004 Special Town Meeting. The School Committee requested an appropriation to expand the project scope, but Town Meeting did not vote in support of the request.
3. **Build a New High School on Clean Site.** For sake of discussion, the Committee suggested that Hunnewell Field be considered the hypothetical site.

¹ The report also detailed the history of the High School project. Readers are directed to the April report if they wish for additional background.

4. **Build a New High School on Current Site.** The hypothetical new high school would be built in the general area now used for parking, allowing the current building to be used while the new facility was being built.

While there was extensive information available on the first two scenarios, the Committee determined that there was not enough information available to assess the third and fourth options. Further, there was no common baseline upon which all options could be compared. Thus, the Committee requested that additional study be conducted on four approaches for upgrading the High School using a planning horizon of 50 years for the building and 30 years for the systems².

The Committee also recommended that the following criteria be considered in evaluating each option:

1. Impact upon the health and safety of staff, students, and teachers.
2. Project Costs.
3. Impact upon the on-going school operation, students, teachers and members of the community who use the facility on regular basis.
 - a. Duration
 - b. Phasing
4. Long term compatibility with School Program.
5. Operating and Maintenance Costs.
6. The extent to which the project fits within School Committee's stated objectives and the Town-wide financial plan.
7. The extent to which the completed project is accessible and available as a resource to the entire Town. For example, if a performance theater is listed in the scope, will it fulfill needs of the greater community?
8. The extent to which the project maximizes the value of the Town's investment. In other words, when the project is finished, what do we end up with?

The 2005 Annual Town Meeting authorized the PBC to commission this study using remaining funds from the initial \$650,000 appropriation. The PBC promptly engaged the architects Symmes Maini & McKee Associates (SMMA) to review the different project approaches.

SMMA, which had been previously engaged to work on Option 1, conducted the study during the spring and summer of 2005. The architects met with school administration and the PBC to establish criteria for the study, to develop educational specifications and to develop and review the options and assess the merits of each. The PBC and SMMA met several times over the course of the study to review progress. Since these were public meetings, members of the Committee would often attend as part of the audience in order to stay abreast of developments.

² These are typical planning horizons for new construction and using them provides a basis for comparing *all* costs (initial and deferred) associated with partial renovation with those of new construction.

SMMA formally transmitted its report to the PBC in mid-September, 2005. The architects presented their findings at the School Committee meeting on September 27. Copies of the final report were provided to members of the Committee for review.

Summary of SMMA Report

High School Project Options

The SMMA report reviewed the previously mentioned approaches. In the course of their work, the architects identified that Option 4 could be broken into two discreet options: “Option 4 New” assumes that a new school would be built on the current site while “Option 4A” assumes that the project would entail a combination of new building and renovations.

Below is a summary of each of the options:

Option 1

This option provides for a three-story classroom addition, demolition of the existing Library/Media Center wing and relocation of the Library to the third floor area above the Auditorium wing. Existing plumbing, electrical and HVAC systems will be renovated to accommodate the new addition and the relocation of the Library. The carpet and asbestos tile will be removed on the second and third floors and HVAC issues will be addressed on the second and third floors of the 1938 building. Additionally, the roofing and flashing will be replaced throughout the high school and the building will be ADA compliant. Cost estimated at \$29.3 million with additional cost within 10 years or more of \$96.9 million, for a total of \$126.2 million.

Option 2

Option 2 includes the work in Option 1 and a comprehensive renovation and addition. This option also includes complete replacement of exterior windows, doors, roofing and masonry refurbishment. Complete replacement of HVAC, plumbing and electrical systems, including fire alarm, paging, telephone, data, video clock, sound and security systems is included. The Auditorium will be completely renovated, the Gymnasiums will be reconditioned and renovated, the Locker Rooms will be renovated, the Cafeteria, Served and Kitchen will be modernized, renovated and made accessible, three Art rooms will be renovated, three Science Labs will be renovated and all toilet rooms will be renovated. Cost estimated at \$86.3 million.

Option 3

This option entails the construction of a new four-story high school on the Hunnewell Field. Cost estimated at \$145.6 million.

Option 4 New

This option involves the phased construction of a new high school on the current site. Phase One builds a new four or five story Academic, Administration and Cafeteria wing on the existing parking lot; Phase Two requires demolition of the 1956 Academic and Cafeteria wings and construction of a 800 seat Auditorium/Theater. Phase Three involves demolition of the 1938 building with the exception of the Gymnasium and construction of a three station gymnasium

with an elevated running track and associated fitness and locker facilities. The 1938 Gymnasium, the 1963 Larsson Gymnasium and the 2002 Fitness Center will be demolished for parking and landscaping. Cost estimated at \$127.7 million.

Option 4A

This option is a variation of 4New and involves many of the renovations included in Option 2, with the following exceptions: in Option 4A, the 1938 building will be renovated with some classrooms, the Gymnasium and the Boys' Locker Room will be converted to alternative uses, the Cafeteria Wing and the 1963 Larsson Gymnasium will be demolished and rebuilt. Cost estimated at \$113.3 million.

The table below describes comparative costs, sizes, and durations for each option.

Table 1: Summary of Project Options In SMMA Report of September, 2005.

Option #	Description	Building Size (sq. ft)	Est. Total Project Cost ³	Project Duration (months)
1	Original Scope (Limited Renovation and Classroom Addition)	255,750	\$126.2M (\$29.3M + \$96.9M) ⁴	30
2	Combined Revised Phase I and Phase II (Full Gut Rehab of High School with Classroom Addition)	255,750	\$86.3M	63
3	New High School on Green Site (Build a New High School on Clean Site)	305,876	\$145.6M	91
4 New	New High School on Existing Site (Build a New High School on Current Site)	305,876	\$127.7M	74
4A	Major Addition & Renovation on Existing Site (A variation on the Build a New High School on Current Site option)	291,060	\$113.3M	76

SMMA Analysis

In evaluating each of the options, the SMMA report indicates that the following criteria were considered:

1. General
 - a. Construction cost

³ The project costs in this column include escalation to account for different periods of project performance. See Table 2 for details on escalation.

⁴ The limited work of Option 1 is estimated at \$29.3M. However, conditions in the building lead the Committee to agree that a full renovation of the remainder of the school (the additional work performed in Option 2) will be needed during the planning horizon. The SMMA study assumes that the timing of the full renovation would take place in 10 years at an estimated additional project cost of \$96.9M.

- b. Construction duration
 - c. Construction commencement date
- 2. Educational
 - a. Accommodate projected student enrollment and educational needs
 - b. Resolve circulation/student flow
 - c. Provide flexibility to accommodate future educational needs
 - d. Provide and accommodate student life/enrichment
 - e. Provide equal or more playing fields
- 3. Building
 - a. Meet current building and accessibility codes
 - b. Improve indoor air quality
 - c. Address security concerns
 - d. Respect/retain historical building
 - e. Create clear and logical building circulation
 - f. Cost effective maintenance
 - g. Maximize use of natural light
 - h. Maximize sustainable design opportunities
 - i. Systems meet 30-year life span
- 4. Site
 - a. Reduce flood plain impact
 - b. Enhance courtyards and public spaces
 - c. Create clear and logical site circulation/drop-off zones
 - d. Provide equal or more on-site parking
 - e. Minimize permitting impact
- 5. Construction
 - a. Limited disruption during construction
 - b. Recognize and address neighborhood disruption during construction
- 6. Community
 - a. Maximize community use potential
 - b. Minimize adverse effects on abutters

Additionally, the architects met with School Administration to develop educational specifications based on the current curriculum and projected enrollment. The current curriculum was evaluated in relation to the Massachusetts School Building Authority's standards for minimum and maximum allowable spaces. These standards are listed in Appendix B.

Using these newly developed educational specifications, SMMA and School Administration also reviewed the current building and space inadequacies based on the education specifications. These included the ability to adequately deliver the high school curriculum, provide appropriate adjacencies within departments or interdepartmentally, meet current MSBA standards and allow for future changes and growth of the existing curriculum.

The chart below summarizes the results of SMMA's analysis of the project options.

Wellesley High School
Wellesley, Massachusetts

OPTIONS CRITERIA MATRIX

CRITERIA	Conceptual Design Options				
	Option 1 - Original Scope	Option 2 - Combined Revised Phase I and Phase II	Option 3** New Construction on New Site	Option 4NEW New Construction on Existing Site	Option 4A Major Addition & Renovations on Existing Site
Students ***	1450	1450	1450	1450	1450
Total Gross Area (Square Feet)	255,750	255,750	305,876	305,876	291,060
Total Approximate Project Cost *	\$29,300,000	\$86,300,000	\$145,600,000 ^a	\$127,700,000	\$113,300,000
Approximate Construction Commencement Date	Feb-07	Oct-07	Jul-10	May-08	Mar-08
Approximate Construction Duration	18 to 22 months	38 to 46 months	34 to 40 months	44 to 50 months	48 to 54 months
Educational					
Accommodates projected student enrollment and educational needs	O	O	*	*	O
Resolves circulation / student flow	O	O	*	O	O
Provides flexibility to accommodate future educational needs	O	O	*	O	O
Provides or accommodates student life/enrichment	O	O	*	*	*
Provides equal or more playfields	Equal	Equal	Fewer	Fewer	Fewer
Building					
Meets current Building and Accessibility codes	O	O	*	*	*
Improves indoor air quality	O	O	*	*	*
Addresses security concerns	O	O	*	*	*
Respect/retain historical building	O	*	O	O	*
Creates clear and logical building circulation	O	O	*	O	O
Is easy and cost effective to maintain	O	O	*	*	*
Maximizes use of natural light	O	O	*	*	*
Maximizes "green" design opportunities	O	O	*	*	*
Systems meet 30-year life cycle	O	*	*	*	*
Site **					
Flood plain impact	O	O	O	O	O
Enhances courtyards and public spaces	O	O	*	O	*
Creates clear and logical site circulation/drop-off zones	O	O	*	O	O
Provides equal or more on-site parking	Equal	Equal	More	Equal	Equal
Permitting Impact	Low	Low	High***	Med***	Med***
Construction					
Limits disruption to education during construction	O	O	*	O	O
Recognizes and addresses neighborhood disruption during construction (noise, dust, parking, etc.)	O	O	O	O	O
Community					
Accommodates community use potential	O	O	*	*	*
Minimizes adverse effects on abutters	*	*	O	O	*

* Assumes Spring 2006 Town Meeting Design Appropriation

** Assumes use of Town property at Hunnewell Fields Site

*** Based on Enrollment Projections from 2004/QE

**** Transfer of land required

^a Does not include land acquisition costs.

Legend

O = Does not meet criteria or no change

* = Partially meets criteria or minimal change

* = meets or exceeds criteria

Symmes Maini McKee Associates

SMMA No. 04047-00
9/20/05

Note: This chart is extracted from the SMMA report of September, 2005.

Committee Discussion

Initial Position of the Committee

Early in the process, the Committee took a “temperature check” to ascertain the option(s) that initially appealed to the group. During that initial poll of the Committee, the following views were expressed:

1. At this point, the Town could no longer afford to live with the status quo and do nothing. Conditions at the High School and growing enrollment justify the need for more classrooms and significant renovations.
2. In the absence of an available site (nor any indication that a site would be available in the foreseeable future), the Committee did not see Option 3 as being viable.

Consequently, the “Do Nothing” option and Option 3 were removed from further consideration.

With the remaining Options 1, 2, 4 New, and 4A, the members felt that investing significant funds into the current High School facility did not make sense. Although the facilities would be brought up to code, the Town would end up with a hodge podge of buildings on a constrained site. Furthermore, issues such as student flow through the building, and the size and configuration of the classrooms would not be addressed by Options 1 and 2. Thus, these were eliminated from further consideration.

Finally, there was a strong desire to preserve and renovate the 1938 wing as members were aware of its historical and cultural significance to the Town. This ultimately moved the group to consensus in their initial conclusion that the approach outlined in Option 4A was the best project option. Many members qualified their comments by stipulating that while they were interested in the Option 4A *approach*, they were not taken with the specific *design* concept listed in the SMMA report.

Views and Issues Raised by Committee Members

During the course of the Committee’s work, factors outside of the High School project were considered:

- competing financial needs within the Town;
- the need for a comprehensive building maintenance plan at all of the schools; and
- the need for a comprehensive master plan for all of the Town’s schools.

Additionally, with respect to the High School, some members raised

- a desire for even more creative approaches in the project design;
- concerns regarding the process for bringing this project forward;
- concerns about the need for more comprehensive information on educational and curriculum changes available with a new school; and
- concerns that the Massachusetts School Building Authority (SBA) is in the process of revising its regulations, which adds uncertainty to the prospects for SBA reimbursement.

Competing Needs Within the Town

The cost of meeting the needs at the High School is not lost on the Committee. Even if the Town undertook the least expensive Option 1 approach, it would still be the largest project in Wellesley's history.

Some members observed that Town finances will be under increased pressure with the growth in health care costs, other capital project needs, and the need to pre-fund post-retirement health care liabilities. The magnitude of a construction project at the High School will not only require strong support within the community, but also a commitment to pay for this project into the next generation.

Comprehensive Maintenance Plan

Some members of the Committee are hesitant to make any recommendations until a comprehensive maintenance strategy is in place for the High School and other schools⁵. The School Department has initiated some repairs at the High School, but the Committee is not aware of any sustained maintenance⁶ that is taking place at any of the school buildings.

Comprehensive School Building Master Plan

Some members expressed concern regarding the unknowns as they relate to other schools. Ideally, they would have wanted a plan⁷, including scope, schedule, and anticipated time adjusted costs, so that the public can judge the needs at the High School in the context of competing needs within the Wellesley Schools⁸. In addition, some concern was expressed that without such a plan, any recommended High School project could suffer delay while the Town wrestles with the issue of how much borrowing and spending capacity will be "left" once the pressing needs of other school buildings are addressed.

Opportunities for Additional Creativity

Regardless of which project approach gets selected, members voiced a desire that the School Committee, PBC, and other project participants look for opportunities to "think outside of the box" and to build "green."⁹ Examples might include: alteration of part of Rice Street in order to reclaim land, siting of any addition or building to consider the possibility of building other Town facilities (swimming pool, for instance), consideration for on-site parking needs, and

⁵ This was a recommendation in the April, 2005 report.

⁶ In this context, "sustained maintenance," means proactive preventative maintenance to preclude the types of conditions observed at the High School. The Committee acknowledges that limited maintenance has taken place to address pressing needs.

⁷ This was a recommendation in the April, 2005 report.

⁸ The Committee is aware that the School Committee's proposed capital budget for FY2007 includes needed repairs and maintenance at some of the elementary schools. Also, the School Committee has received an Elementary Feasibility Study Report dated December 2005 from SMMA. The report presents a current assessment of the facilities at Fiske, Hardy, Hunnewell, Schofield and Upham and options and approaches for preparing a Master Plan for long term capital planning. The School Committee has approved a five year capital plan as the first step in developing a long term capital plan.

⁹ The School Committee voted unanimously to support "green" practices in future renovation and building projects.

possible options for wetlands reclamation on School property in conjunction with the Fuller Brook Restoration project.¹⁰

Process for Bringing a Project Forward

The Committee is concerned that the process in place for developing and constructing this project will have the effect of adding costs to the endeavor. For example, the current practice of lump sum bidding of a construction project places the risk of unknowns onto the Town. In the event that something is not explicitly included in a bid document, a change order is often necessary and, depending on the nature of the issue, the Town can be responsible for the cost of the change order.

Articulating Educational Needs

The Committee's level of comfort with the stated educational program varied. Some observed that the School Committee had done a great deal of work over the past year to identify and quantify their needs. On December 1, 2005, Superintendent Matthew King, Assistant Superintendent Bella Wong, and High School Principal Rena Mirkin attended a Committee meeting to elaborate on program changes. Dr. King explained how education had changed during the last 20 to 30 years. We now have standards-based curriculum and increased teacher collaboration, MCAS, more diverse Special Education services, differentiated instruction, inquiry-based science, technology as a tool in all aspects of the program, and new electives. These changes require different types of space, such as larger classrooms, rooms for small group instruction and for teacher planning and consultation, and more space flexibility than is currently available at the High School. Many spaces currently in use are undersized and inappropriate, having been carved out of classrooms, storage areas and hallways. In addition, circulation is impeded by narrow stairways and building layout, the result of wings added over the years.

Dr. King stated that the High School has excellent educators and a superb curriculum, but the condition of the facility is beginning to place stress on our system. While Wellesley High School is rated one of the best in the state, the School Administration is concerned that we will not be able to attract and retain the best educators who may prefer to work in communities with new facilities. Dr. King further stated that the high school's core curriculum and values would not substantially change with a new high school; however, larger and more appropriately designed space will provide enormous opportunities for small group instruction, one-on-one assistance, teacher collaboration and multi-themed teaching, in addition to improvements in spaces for music, art and athletics.

Those that expressed concern about the level of definition pointed to the contents of the SMMA Report. It includes an inventory of current spaces and the size of those spaces today. In a separate column, the Report identifies how large each of these spaces will need to be based on the higher end of the MSBA space guidelines for Wellesley's anticipated enrollment growth. The inventory included certain new spaces that SMMA has recently incorporated in new public high schools in Massachusetts, but that do not currently exist at the High School. A few examples of these types of spaces include departmental resource centers and computer rooms.

¹⁰ The intent of this section is to illustrate issues and opportunities unique to this project. It is not intended to be a criticism of the professionals that have contributed to this project.

Some Committee members feel these space types were too generic, that specialized space needs at the High School had not yet been articulated, and that the exclusive use of the MSBA's high end recommended square footages was excessive. For instance, with respect to specialized spaces, would departmental resource centers support the High School curriculum or should resources be grouped in a library/media center, or should some of these resources centers be geographically dispersed in the building? The building program must be tailored to the curriculum and teaching approaches specific to the High School. This type of deeper program information can and should be gathered through interviews with and across numerous constituencies in the next stage of the process. It will include sizes, adjacencies, room function and contents. The program information can be used to build consensus and make difficult choices.

Comparison of Options

As part of its process, the Committee looked for a common base to compare the different options. For reasons previously cited, Option 3 was removed from consideration.

While reviewing the SMMA report, the Committee noted that Options 1 and 2 will ultimately result in the same work scope – the only difference is that work will be broken across several years in Option 1 while Option 2 does all renovation within the context of a single project. Thus, we looked on each of these as being the same with just a variation on how the Town might choose to execute the work.

As a consequence, only Options 2, 4 New, and 4A were still considered viable by the Committee. The project costs of these options are compared in Table 2. It should be noted that the project costs supplied were not refined and thus were subject to an appreciable upward or downward variation.

Table 2: Comparison of Options 2, 4New, and 4A.

Line #		Option 2	Option 4 New	Option 4A
Project Parameters				
P.1	Design Capacity (Students)	1450		
P.2	Building Size (sq ft)	255,750	305,876	291,060
P.3	Construction Start Date	August, 2007	May, 2008	March, 2008
P.4	Project Closeout Date	June, 2011	May, 2012	May, 2012
Project Costs				
Construction Costs				
C.1	Construction	\$ 44,218,819	\$ 69,508,763	\$ 55,057,134
C.2	Site Work	\$ 1,040,000	\$ 5,000,000	\$ 3,900,000
C.3	Other	\$ 860,938	\$ 827,865	\$ 860,938
C.4	<i>Subtotal before Escalation (Lines C.1:C.3)</i>	\$ 46,119,757	\$ 75,336,628	\$ 59,818,072
C.5	Escalation	20% \$ 9,223,951	25% \$ 18,834,157	25% \$ 14,954,518
<i>Total Construction Costs & Escalation</i>				
C.6	<i>(Sum Lines C.4:C.5)</i>	\$ 55,343,708	\$ 94,170,785	\$ 74,772,590
C.7	Bid Contingency	3.5% \$ 1,937,030	3.5% \$ 3,295,977	3.5% \$ 2,617,041
C.8	Modulars	\$ 3,646,960	\$ -	\$ 3,199,840
C.9	Technology	\$ 2,175,000	\$ 2,537,500	\$ 2,537,500
<i>Subtotal Construction, Bid Contingency, Modulars, & Technology (Sum Lines C.6:C.9)</i>				
C.10		\$ 63,102,698	\$ 100,004,262	\$ 83,126,971
C.11	Architectural & Engineering	\$ 7,679,740	\$ 10,046,672	\$ 9,977,336
C.12	Other Prof Services	\$ 1,929,300	\$ 2,007,200	\$ 2,222,500
C.13	Finishings, Fixtures & Equipment	\$ 1,595,000	\$ 2,465,000	\$ 2,465,000
C.14	Other Costs	\$ 2,396,656	\$ 3,018,388	\$ 2,899,830
C.15	<i>Subtotal (Sum Lines C.10:C.14)</i>	\$ 76,703,394	\$ 117,541,522	\$ 100,691,637
C.16	Construction Contingency	15% \$ 9,590,405	10% \$ 10,125,421	15% \$ 12,594,046
C.17	Total Project Cost (Sum Lines C.15:C.16)	\$ 86,293,799	\$ 127,666,943	\$ 113,285,683
Project Cost Comparison Ratios				
R.1	Total Project Cost/Student (Line C.17/Line P.1)	\$ 59,513	\$ 88,046	\$ 78,128
R.2	Construction Cost/sf in Current Dollars (Line C.4/Line P.2)	\$ 180	\$ 246	\$ 206
R.3	Soft Costs (Lines C.11, C.12, and C.14)	\$ 12,005,696	\$ 15,072,260	\$ 15,099,666
R.4	Soft Costs/Total Project Cost (Line R.3/Line C.17)	13.9%	11.8%	13.3%
R.5	Architectural & Engineering Costs/Total Project Costs (Line C.11/Line C.17)	8.9%	7.9%	8.8%
R.6	Total Project Cost/sf (Line C.17/Line P.2)	\$ 337	\$ 417	\$ 389

Recommendations

Recommendation for High School Building Project

As the Committee discussed the merits of each building approach, there were differing views on whether an Option 2 or Option 4A approach would best meet the needs of the Town. A strong majority favored the Option 4A approach.

As the discussion progressed, we observed that the differences in opinion were largely a consequence of the inferred meanings of each term and that there was a consensus within the Committee. Specifically, some members viewed Option 2 only as a renovation and limited addition and that it would preclude additional building, even where reconfiguring existing space could not reasonably meet program needs. Others thought that the Option 4A approach might lead to the needless demolition of perfectly functional buildings and needlessly escalate the cost of the project.

The Committee saw that neither Option 2 nor Option 4A could adequately reflect our intended recommendation. Rather, we had to look at the two approaches along a continuum. The group felt that the educational program should drive the building project and, since the program has not been sufficiently defined yet to detail the project, it would be difficult to make the case for a specific point on that continuum. Thus, we are terming our approach as Option 4R.

The Committee recommends that the 1938 wing be preserved and incorporated into any final project plan, if reasonably possible. Further, the Committee expects that the School Committee will make a concerted effort to adapt the existing buildings and spaces rather than build new, where advisable. When this is not feasible for the educational program, the Committee supports construction of new spaces - educational programs should not be sacrificed in order to preserve spaces that do not address and support the needs of the High School's curriculum, students and educators. However, the Committee does not support demolition and rebuilding for the sole purpose of having a "new" facility.

The Committee believes that the most sound and cost effective approach to meeting the needs at the High School, and the critical next step in the process, is for the School Committee commission a thorough needs analysis (architectural program). This will inform what types of spaces, how big, and adjacency requirements, for the types of spaces needed to support the WHS curriculum. Once this detailed analysis is completed, this data can be tested and tried in numerous space planning configurations. It will show what functions fit where within existing building or their shells, and what functions can not be accommodated in the current structures and will this require new construction. As conceptual plans evolve, it will be important to keep an eye on the project as a whole so that the final building will result in a coherent and comprehensive building plan.

Spending a little extra money or time to explain how a particular approach best supports the educational program is in the best interest of Wellesley. We are confident that the Schools will work to develop their vision for how their educational and building programs can literally shape a substantially renovated or new facility. This can be achieved through a thorough programming exercise and research into what different high schools around the nation have built and how their experiences are working. Such a comprehensive effort may take 6-12 months to achieve, but it

assures that we ultimately create a High School that the Town firmly believes will adequately provide our children with the appropriate college preparatory program for the next 50 years.

The Committee recognizes that trade offs between program and spaces will occur. These choices are inevitable in any major project. We are confident that the School Committee will successfully balance educational needs with costs in this next phase of the project planning.

Additional Considerations

The Committee offers the following general recommendations. We see these as being critical to the overall success of any High School project.

Comprehensive Maintenance Plan for Schools

It is the expectation of the Committee that the School Committee will develop a comprehensive maintenance strategy for all of its buildings and will request adequate funds to execute this strategy. A reasonable timetable for such a plan is to have it in place in time for the FY08 capital budgeting process. The Committee is hopeful that other Town departments will work with the School Committee to carry out the plan and the Town will fund the maintenance plan.

Master Plan for School Buildings

The Committee recommends that in addition to the five year capital plan that the School Committee recently approved, it prepare a long term capital plan for all of its buildings. The information necessary for such a plan is contained in SMMA's report on the five elementary schools that have not been renovated. While this should not delay a project at the High School, the Town must have an understanding of what lies ahead for its school buildings.

Further, the Committee recognizes that there are a number of ways to execute a project. With a Master Plan in place, the School Committee will be able to sequence work, if necessary, to meet emerging needs across the system.

Process for Bringing a Project Forward

We recommend that the town change the way it executes a project of this magnitude. We have observed that other communities form a separate committee for each project. These committees include townspeople with expertise and educators to design and map out the project carefully. While we are not advocating for any change to the current structure of Town government, we do see a benefit to having a group focused exclusively on the High School and would recommend it for consideration by the PBC, School Committee, and others.

The Town should also consider asking permission from the legislature to execute this project under the Construction Manager (CM) at risk contract in lieu of lump sum bid¹¹. It is virtually impossible to draw a renovation project sufficiently to contract it under a hard bid contract without having numerous change orders. Under CM at risk, the CM and architect come on board at the same time and work together to bring the project in on budget.

¹¹ The State college building authority has been using this method for the past few years with much success.

The CM is responsible for doing due diligence in order to deliver a Guaranteed Maximum Price (GMP) to the town. They own what is “reasonably inferable from the documents”, which is far more than you get in a bid. They are responsible to budget the project as the design advances, reconcile one budget to the next, offer value engineering ideas to keep the project in line, and deliver a GMP in conformance with the budget.

When a project is structured in this manner, you **MAKE** a project come in on budget. When you do the design, bid, build method you **HOPE** a project comes in on budget. The stakes are too high here for that.

In addition, the town should consider hiring a Project Management firm experienced in administering this type of project. There are numerous firms that provide just this service to private schools, colleges, and the private industry marketplace every day. Wellesley will get a much better value for our dollars spent under this scenario.

Conclusion

The Committee recognizes that this project presents an enormous opportunity to the Town and its educators – the opportunity to design a 21st century high school that will accommodate the educational program, all of our students and their learning styles, provide flexibility for educational and curriculum advances, and allow our teachers and staff to continue to deliver an outstanding education and maintain Wellesley’s reputation for educational excellence.

A project of this magnitude will have an impact on our community for many generations and will require the support of the entire Town and coordination with multiple Boards. To achieve this, there must be a vision that people can support and Boards can work toward.

As one member said, “We all want to ‘Get it Right.’” The Committee believes that the recommendations and approach outlined in this report will address the deteriorating systems, enrollment projections, layout deficiencies of the building and classrooms, support the current and future educational programs, and provide flexibility for educational and curriculum advances.

Appendix A:

Listing of Committee Members

Member	Background
Marlene Allen 29 Rice Street	Former Advisory Committee Chair, Residential Realtor, Former Teacher, WHS Neighbor, Town Meeting Member
Tory DeFazio 88 Fuller Brook Road	Wellesley Historical Society, Wellesley Archives Committee, Town Meeting Member
George Field* 53 Windsor Road	Attorney, Former High School Teacher, Town Meeting Member
Jan Gleysteen* 19 Elm St.	Architect
Tom Goemaat* 58 Hundreds Road	Commercial Construction
Mary Forte Hayes 19C Oak Street	Former WHS Principal, Consultant
Curt Smith 9 Wingate Road	Small Business Owner, Playing Fields Task Force, Town Meeting Member
Jack Sullivan	Construction, Former WHS neighbor
Terri Tsagaris 73 Longfellow Road	WMS PTO President, Town Meeting Member
Cynthia Westerman 25 Seaver Street	Project Management, WHS neighbor
Michael Humphrys* – Chairman 19 Bryn Mawr Road	Board of Public Works, Town Meeting Member, Former Member of Advisory Committee

*Member, 2003 Wellesley Middle School & High School Facilities Advisory Committee

Appendix B:

Extract from Massachusetts School Building Authority Guidelines

Education Laws and Regulations

603 CMR 38.00:

School Construction

Section:

[38.01:](#) Authority, Scope and Purpose
[38.02:](#) Definitions
[38.03:](#) General Requirements: Capital Construction
[38.04:](#) Site Standards: Capital Construction
[38.05:](#) Program Standards: Capital Construction
[38.06:](#) Cost Standards: Capital Construction
[38.07:](#) Major Reconstruction Projects
[38.08:](#) Regional Buy-In Grants
[38.09:](#) Emergency Reconstruction Grants
[38.10:](#) Application Procedures
[38.11:](#) Grant Awards
[38.12:](#) Payment Requirements and Procedures
[38.13:](#) Waivers
[38.14:](#) Minimum Spending Requirements for Building Maintenance
[38.15:](#) Reimbursement Rates
[38.16:](#) Closing Schools
[View All Sections](#)

Most recently amended by Board of Education vote: May 25, 2004, effective 6/18/04

38.05: Program Standards: Capital Construction

In order to maximize the cost effective production of efficient, programmatically sound school projects, every capital construction project shall conform to the following program standards.

(1) **Program Design** A school project shall be designed based upon an approved program for a specified number of students for a typical academic week. The program model shall be approved by the district school committee, and shall comply with requirements of law and Board regulations relative to curriculum, program, student learning time and length of school year. In addition the project design may contain provision for community programs approved by the district school committee or other local agency or office having lawful control of community programs. Community school spaces shall be included within the gross square footage established in 603 CMR 38.00 unless the Commissioner specifically approves additional space based on a demonstrable community need that cannot be accommodated within those limitations. Swimming pools and skating rinks shall not be eligible for reimbursement. Field houses shall only be eligible for reimbursement to the same extent as gymnasiums.

(2) **Planned Enrollment** The Department and the applicant shall agree on a planned enrollment for the school project. The applicant shall provide adequate supporting documentation as requested by the Department. The planned enrollment shall be consistent with demonstrable need, and shall not include incoming school choice students.

(3) **Per Pupil Space Allowance** The Commonwealth shall share in construction of school facilities within the following limitations in gross square footage, determined according to the method of computation contained in 603 CMR 38.05(6):

- (a) Elementary Schools - not more than 115 gross square feet per pupil in planned enrollment.
- (b) Middle Schools/Junior High Schools - not more than 135 gross square feet per pupil in planned enrollment.
- (c) Academic High Schools - not more than 155 gross square feet per pupil in planned enrollment.
- (d) Vocational Technical Schools - not more than 225 gross square feet per pupil in planned enrollment.

(e) Comprehensive High Schools - not more than 225 gross square feet per planned vocational technical student enrollment plus not more than 155 gross square feet per planned academic pupil enrollment.

(4) Space Allowance by Program Activity The standards set forth in Tables 1 through 3 shall be followed in planning school construction and expansion for elementary, junior high/middle, and secondary schools for which State school building assistance funds are sought.

Table 1- Elementary School Program Standards

Program spaces for an elementary school shall be shared in by the Commonwealth if they fall within these ranges. A variation of 5% is permitted.

All spaces exclusive of storage	Minimum - Maximum (net area)
Classrooms (Grades 1-8)	900 - 1000 square feet
Pre-Kindergarten and Kindergarten (with self-contained lavatory)	1200 - 1300 square feet
Special Education and Collaboratives	as needed
Art	1000 - 1200 square feet
Music	1000 - 1200 square feet
1. Practice Rooms	75 -130 square feet
2. Ensemble Rooms	up to 300 square feet
Media Center/Library Reading Room	1800-3000 square feet
Cafeteria	15 square feet per pupil computed to accommodate not more than $\frac{1}{2}$ nor less than $\frac{1}{3}$ the planned enrollment.
Kitchen	1300 square feet for the first 300 students; one square foot per each additional student.
Gymnasium	
1. 12+ classroom school/separate gymnasium, first 2 teaching stations	Gymnasium 3000 square feet per station minimum
2. Smaller school, all purpose room or third teaching station and subsequent teaching stations	Gymnasium 2000 - 3000 square feet each station
Administration	up to 800 square feet
Health Area	300 - 750 square feet
Guidance Area	as needed
Small Group and Seminar	up to 500 square feet each
Computer Labs/Work Stations	30 square feet per work station

Table 2 - Junior High and Middle School Program Standards

Program spaces for junior high and middle schools shall be shared in by the Commonwealth if they fall within these ranges. A variation of 5% is permitted.

Classrooms	
1. Small Group Seminar	300 - 500 square feet
2. Regular Interchangeable (20-30	750 - 850 square feet

pupils)	
3. Large Group (80-125 pupils)	1500 - 2000 square feet
4. Storage	as needed
Computer Labs/Work Stations	30 square feet per work station
Art	
1. General Area (storage not incl.)	1200 - 1400 square feet
2. Specialized Areas (storage not incl.)	600 - 1200 square feet
3. Storage	min. 100 -200 square feet/art room
Music	
1. Rehearsal (band, chorus, etc.)	1400 - 1600 square feet
2. Theory & Choral	900 - 1200 square feet
3. Practice Rooms	75 -130 square feet
4. Ensemble Rooms	up to 200 square feet each
5. Storage	as needed
Office Technology	1200 -1400 square feet
Family & Consumer Science	1400 -2400 square feet
Life Management Skills	2400 -2600 square feet
(includes computer & demonstration space)	
Technology/Engineering	
1. Fabrication Area	Up to 100 square feet/pupil each laboratory. Minimum 2000 square feet
2. Engineering Design Area	1200 -1400 square feet
Science	1000 - 1200 square feet
Physical Education (2 stations)	6000 - 7500 square feet
Additional teaching stations	up to 3000 square feet each

Table 3 -Secondary School Program Standards

Program spaces for a secondary school shall be shared in by the Commonwealth if they fall within these ranges. A variation of 5% is permitted.

Classrooms	
1. Small Group Seminar	300 - 500 square feet
2. Regular Interchangeable (20-30 pupils)	750 - 850 square feet
3. Large Group (80-125 pupils)	1500 - 2000 square feet
Computer Labs/Work Stations	30 square feet per work station
Art	
1. General Area (storage not included)	1200 - 1400 square feet

2. Specialized Areas (storage not included)	600 - 1200 square feet
3. Storage	100 -200 sq. ft./art room
Music	
1. Rehearsal (band, chorus, etc.)	1400 - 1600 square feet
2. Theory & Choral	900 - 1200 square feet
3. Practice Rooms	75 -130 square feet
4. Ensemble Rooms	up to 200 square feet each
Office Technology	1200 -1400 square feet
Family & Consumer Science	1200 -1400 square feet
Technology/Engineering	
1. Fabrication Area	Up to 100 sq.ft./pupil each lab. Minimum 2000 square feet.
2. Engineering Design Area	1200 -1400 square feet
Science	
1. Lecture-Laboratory	1000 - 1200 square feet
2. Demonstration/General Science	900 - 1000 square feet
Cafeteria	15 square feet per pupil computed to accommodate not more than $\frac{1}{2}$ nor less than $\frac{1}{3}$ the planned enrollment
Physical Education	
1. Gymnasium (2 stations)	6200 - 7500 square feet
2. Additional Teaching Stations	1200 - 3500 square feet
Library (Instructional Materials Center)	Reading room - up to 15% of enrollment x 40 square feet - maximum. (Other areas may be added, if planned, i.e., office, conference, etc.)
Auditorium	Seating for not more than the planned enrollment nor more than 1000 persons. If the planned enrollment exceeds 1000, allow 7 square feet per person maximum.
Administration	up to 1500 square feet
Guidance	800 to 1000 square feet
Health	500 - 1000 square feet

(5) Space Allowance Exceptions:

(a) The Commissioner may approve reasonable departures from the gross square footage requirements to accommodate proposed additions to existing school buildings when such departures will be consistent with the intent of 603 CMR 38.00 to provide adequate, safe, cost effective and programmatically sound school projects.

(b) The applicant shall provide assurance that the capital construction project provides adequate and appropriate space to accommodate early childhood and educational collaborative programs and programs to serve students with special needs or linguistic minority students who are not currently served in regular public school facilities. The Commissioner may grant an exception to the space allowance limitations if needed to accomplish these purposes.

(c) In the case of open plan buildings, the Commissioner may approve reasonable variations from the size of the listed program spaces with adjustment in gross project allowances where it can be demonstrated that the planning for such facility reflects good educational practice.

(d) Spaces for special education classes/programs will receive special consideration, in the discretion of the Commissioner, notwithstanding the gross square footage allowances contained in 603 CMR 38.00.

(e) Other exceptions to the minimum and maximum program space allowances may be granted at the discretion of the Commissioner or the Board.

(6) Space Computations. Gross and net square footage and perimeter measurements shall be reported with all preliminary, revised, and final drawings submitted for approval, and shall be computed according to the following methods:

(a) Gross Square Footage. The gross area of a building is the sum of all areas of the several floors, including mezzanines, stairwells, and basements having a floor slab and 7'6" or more headroom. Additionally covered walkways, roofed-over areaways or courts, and similar areas shall be included in the gross area at one half their actual area. All horizontal measurements shall be taken from the exterior face of enclosing walls, at the plane of the floor. The following shall not be included in gross area computation: basements having no floor slab or less than 7'6" headroom; pipe trenches; retaining walls; roof overhangs; exterior terraces; and courts open to the sky.

(b) Net Square Footage. The net area of individual spaces shown on approved educational specifications and included in the plans shall be measured from the inside face of enclosing walls and partitions. Wall thickness shall be excluded.

1. Basic Instructional Spaces (classrooms) shall include the net area of all non-specialized and special subject teaching areas, including directly-related preparation and equipment storage rooms. Do not include the area of such spaces as ancillary toilets, wardrobes, and teachers' supply closets.
2. Miscellaneous Educational Space shall include the net area of miscellaneous specified or required educational space, such as gymnasium locker rooms, cafeteria dining areas, kitchens, administration offices, health service unit, guidance quarters, teacher workrooms, storage, community rooms and serving rooms.
3. Other square footage is determined by subtracting "Basic Instructional" and "Miscellaneous Educational" spaces, determined as above, from the calculated gross area. Thus, "Other" will include wall thickness; corridors, stairways, and other circulation space; general storage areas; custodians' closets and receiving areas; toilets; and heating and mechanical spaces.

(c) Perimeter. The perimeter of a building shall be the sum of the lineal length of the enclosing walls (including piers, wall extensions and courts) taken at the plane of the floor level, including finished basements.

Regulatory Authority:

603 CMR 38.00: M.G.L c. 69, § 1B and Chapter 70B